

IN THE CLAIMS:

Please cancel Claims 1-18 and 27-34.

Respectfully submitted,
Texas Instruments Incorporated

A handwritten signature in black ink, appearing to read 'W.B. Kempler', written in a cursive style.

William B. Kempler
Senior Corporate Patent Counsel
Reg. No.: 28,228
(972) 917-5452

Claims:

1-18 (cancelled)

19. (original) A defective pixel filter comprising:

a first comparator circuit receiving as input a first pixel value and a second pixel value and outputting a valid logic signal to a first input of an AND circuit and to a first inverter when the first pixel value is greater than the second pixel value;

a first difference calculator receiving as input said first pixel value and said second pixel value and outputting to a first input of a second comparator circuit a first difference value corresponding to the difference between said first and second pixel values;

said second comparator circuit also receiving as input a threshold value and outputting a valid logic signal to a first input of an OR circuit when the first difference value is less than or equal to said threshold value;

a third comparator circuit receiving as input said second pixel value and a third pixel value and outputting a valid logic signal to a second input of said first AND circuit and to a second inverter when the second pixel value is greater than the third pixel value; and

a second difference calculator receiving as input said second pixel value and said third pixel value and outputting a second difference value corresponding to the difference between said second and third pixel values to a first input of a fourth comparator circuit;

said fourth comparator circuit also receiving as input a threshold value and outputting a valid logic signal to a third input of said OR circuit when the second difference value is less than or equal to said threshold value; and

a second AND circuit coupled to said first and second inverters and having an output coupled to a fourth input of said OR circuit.

20. (original) The defective pixel filter of claim 19 further comprising:
a corrected pixel calculation block receiving as input said first and third pixel values and outputting a corrected pixel value;
a multiplexer having a first input coupled to the output of said corrected pixel calculation block, and receiving as a second input said pixel value, and having a control input coupled to an output of said OR circuit.

21. (original) The defective pixel filter of claim 19 further comprising registers for storing pixel values.

22. (original) The defective pixel filter of claim 19 being operative in both monochrome and color mode and further comprising at least one multiplexer receiving as input the pixel values stored in at least two registers, and outputting one of said pixel values in response to an indication of monochrome or color mode operation.

23. (original) The defective pixel filter of claim 19 wherein said first, second, and third pixel values are ten bit digital values.

24. (original) The defective pixel filter of claim 19 further comprising a threshold value register in which is stored said threshold value.

25. (original) The defective pixel filter of claim 19 wherein said comparator circuits, difference calculators, and registers are fabricated with CMOS processes.

26. (original) The defective pixel filter of claim 19 wherein said comparator circuits and difference calculators are formed by a general purpose microprocessor running programmed instructions.

27-34 (canceled).